

1 **ABSTRACT OF THE DISCLOSURE**

2 The present invention includes field effect transistors, field
3 emission apparatuses, thin film transistors, and methods of forming field
4 effect transistors. According to one embodiment, a field effect transistor
5 includes a semiconductive layer configured to form a channel region; a
6 pair of spaced conductively doped semiconductive regions in electrical
7 connection with the channel region of the semiconductive layer; a gate
8 intermediate the semiconductive regions; and a gate dielectric layer
9 intermediate the semiconductive layer and the gate, the gate dielectric
10 layer being configured to align the gate with the channel region of the
11 semiconductive layer. In one aspect, chemical-mechanical polishing self-
12 aligns the gate with the channel region. According to another aspect,
13 a field emission device includes a transistor configured to control the
14 emission of electrons from an emitter.

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